

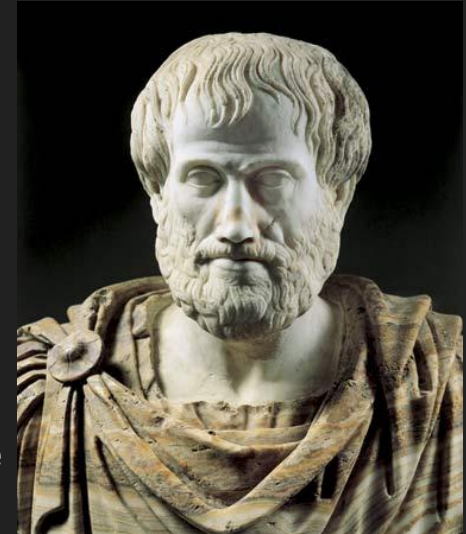
Scientific Revolution - Middle Ages

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World Politics - Period 4 - Mr. Lambek

The Old Science

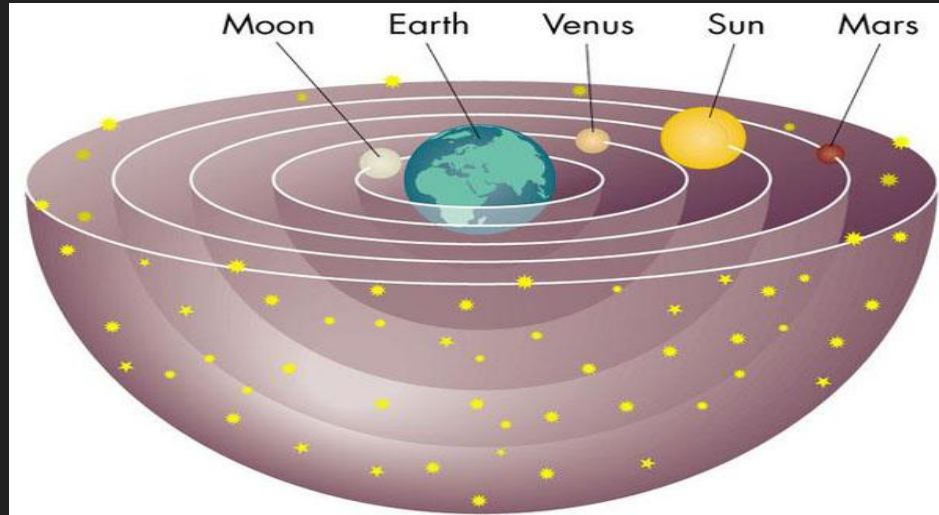
- Ideas would be rejected if it did not fit into religious beliefs
- Scholars relied on ancient authorities, church teachings, common sense, and reasoning to explain the physical world.
- Before 1500, scholars generally referred to an ancient Greek or Roman author or to the Bible
- Aristotle, a Greek philosopher gave the idea of the geocentric theory



Aristotle

The Medieval View

During the middle ages scientists believed that the Earth was at the center of the universe and that beyond the planets there was a sphere of stars and farther beyond that was heaven. This was called the geocentric theory. This idea came from Aristotle, the Greek philosopher of the fourth century B.C. The Greek astronomer Ptolemy expanded the theory in the second century A.D. In addition, Christianity taught that God put the earth in the center of the universe.

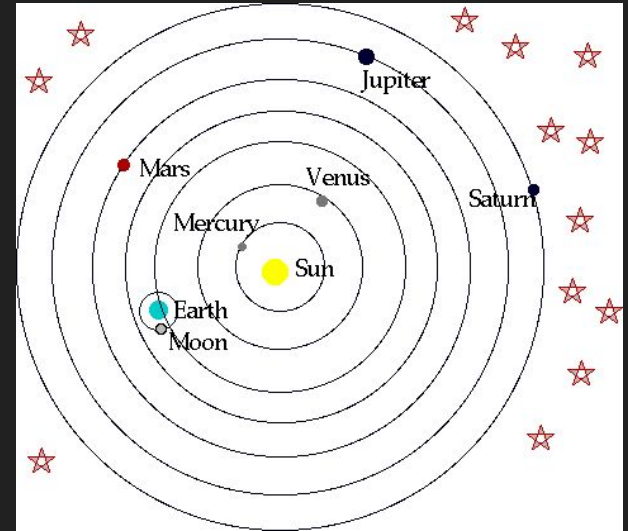
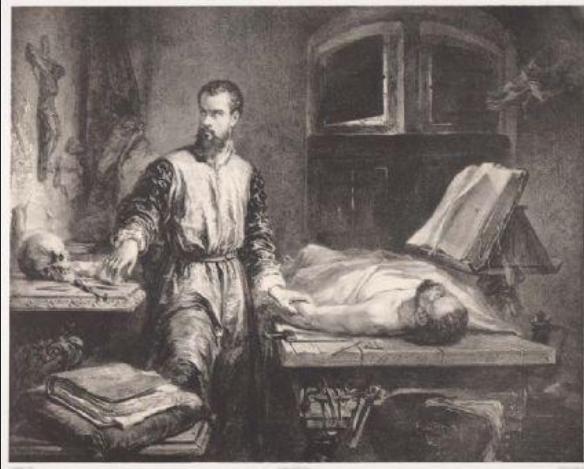


The Scientific Method

- It's a logical procedure for experimenting, collecting data, asking questions, and so on.
- Copernicus, Kepler and Galileo all used the scientific method in their own ways towards the New Science.

The New Science

- Scholars began to use observations, experiment, and scientific reasoning to gather knowledge and draw conclusions about the physical world.
- Copernicus made the theory that the sun was the center of the universe, called the Heliocentric theory.
- Andreas Vesalius, dissected human corpses and made detailed drawings of organs, bones, and muscles.



Bacon and Descartes

- Modern scientific methods are based on the ideas of Bacon and Descartes. Francis Bacon and Rene Descartes helped advance the scientific method. Francis Bacon believed that by better understanding the world, scientists would generate practical knowledge that could improve people's lives. Francis would encourage scientists to experiment and draw conclusions than relying on conclusions of other ancient thinkers. Rene Descartes discovered analytical geometry, which then went into algebra. They both believed that scientists needed to reject old teachings.

Important People and Events

Johannes Kepler (1500's): Used the Scientific method. He was a mathematician after being Brahe's assistant.

Galileo Galilei (1500's): Used the Scientific Method (7 steps: Question, Hypothesis, Drawing conclusions, etc). He was 17 years old at the time and he was Aristotle's Italian student assistant.

Nicolaus Copernicus (1500's): Believed that the sun was at the dead center and all planets orbit around it (the Heliocentric Theory).

Isaac Newton: Developed the Law of Gravity during the mid-1600's.

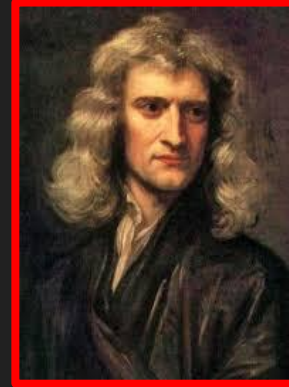
Important People During the Scientific Revolution



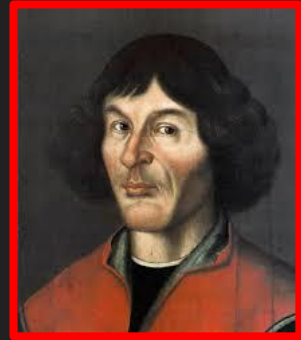
Johannes
Kepler
(1500's)



Galileo Galilei
(1500's)



Isaac
Newton
(1600's)



Nicolaus
Copernicus
(1500's)